

### REMARKS

In the application, Claims 1, 16-21, 24-28, 35 and 37-41 are pending and rejected. The rejections raised in the Office Action of August 23, 2005 have been considered and comments are provided below. It is submitted that the claims as amended are in a condition for allowance and the Examiner is requested to reconsider the claims and issue a notice of allowance.

#### Rejection under 35 U.S.C. §102

The Examiner rejects Claims 1, 16-21, 24-28, 35 and 37-41 under 35 U.S.C. §102(b) as being clearly anticipated by Ermolaeva et al.

The Examiner has maintained the prior rejection based on the assertion that the relational database of Ermolaeva et al. is the same as the multiple, separate databases claimed by Applicant. The Examiner cites the definition of “database” from *Database Management Systems* by Raghu Ramakrishnan (1<sup>st</sup> Ed.) 1998, McGraw-Hill Companies, as a collection of data in support for his position that the tables within the relational database of Ermolaeva et al. (ArrayDB) are the same as multiple databases. While one must admit that a table within a relational database does include more than one item of data, this does not make multiple tables within a relational database equivalent to multiple, separate databases. In fact, in the same reference relied on by the Examiner, Ramakrishnan defines “relational database” as “a set of relations”, where a relation is made up of 2 parts: “instance: a table, with rows and columns” and “schema: specifies name of a relation ...” (See attached Exhibit A, which are pages excerpted from the teaching slides prepared by the author for use with his textbook. The slides are available on the Internet at [www.cs.wisc.edu](http://www.cs.wisc.edu).) A set of relations within a single database, as taught by Ermolaeva et al. is not the same as multiple, distinct databases within the database management systems of Applicant.

Ermolaeva et al. describe their database as “an industry standard relational database management system combined with platform independent interfaces for data entry and retrieval”, citing to P. Greenspun, *Database Backed Web Sites: The Thinking Person’s Guide to Web Publishing* (Ziff-Davis, Emeryville, CA, 1997). The full-text electronic edition of this book is available on the internet as “How to be a Web Whore Just Like Me” at <http://philip.greenspun.com/wtr/dead-trees/>. In Chapter 11, entitled “Choosing a Relational

Database”, the author describes a relational database as “a big spreadsheet that several people can update simultaneously”, where “each table in the database is one spreadsheet.” (See Exhibit B.) Using this analogy, while a spreadsheet may be a collection of data, *it would not be regarded by any person in the art as a database*. Because Ermolaeva et al. teach only the use of a relational database, i.e., a collection of spreadsheets, they do not teach the use of multiple, distinct databases and, therefore, cannot anticipate Applicant’s invention as claimed.

To further emphasize the distinct nature of Applicant’s databases, the base claims have been amended to include the limitation that communication between the databases, the user interface and the runtime engine occurs over a CORBA interface. CORBA (Common Object Request Broker Architecture) is a standard for interoperability in heterogeneous computing environments. (See Exhibit C, “CORBA Basics”, from *The C++ Report*, October 29, 1997, available on the Internet at <http://ootips.org/corba-basics.html>.) This additional limitation supports Applicant’s position that the databases are distinct, i.e., heterogeneous, and that an interface is used to allow communication between the databases. This limitation is supported in the specification at page 81, last paragraph, and in Figure 7, where the CORBA interface between the databases, runtime engine and user interface is clearly illustrated. It is submitted that Ermolaeva et al. do not disclose a CORBA interface and, therefore, cannot anticipate Applicant’s invention as now claimed.

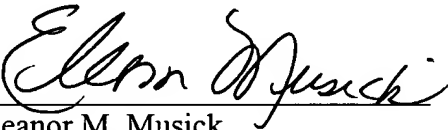
The present application claims a database management system and method for gene expression data, not merely a relational database containing gene expression data. For the foregoing reasons, the Ermolaeva et al. reference does not teach each and every element and, therefore, cannot anticipate Applicant’s invention as now claimed. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection under §102(b).

In view of the foregoing amendments and remarks, Applicant submit that all bases for rejection have been addressed and overcome such that the amended claims are allowable over the prior art. Accordingly, Applicant respectfully requests that the Examiner withdraw all rejections set forth in the Office Action and issue a notice of allowance for all claims now in the application.

Should the Examiner believe that prosecution of this application might be expedited by further discussion of the issues, he is invited to telephone the undersigned attorney for Applicant at the telephone number indicated below.

Respectfully submitted,

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